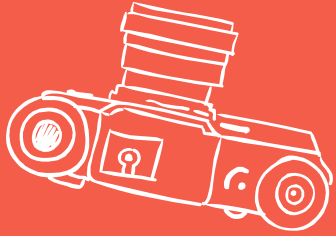


# HOW DO COMPUTERS WORK?



# WHAT IS A COMPUTER?

## ***Computer***

An electronic device for storing and processing data according to instructions given to it in a variable program.

# ARE THESE COMPUTERS?





## OTHER EXAMPLES OF COMPUTERS

- Smart watches
- Digital cameras
- Video game consoles
- Video game controllers
- Washing machines
- Refrigerators
- Coffee makers
- TVs
- TV remotes

CAN YOU THINK OF MORE?

# *What do computers do?*



# *Computers process data!*





# DATA IS... INFORMATION

- Numbers
- Letters
- Words
- Positions
- Size
- Weight
- Color

## CAN YOU THINK OF MORE?



## DATA TYPES

- Not all data is created equal
- Some types of data are different than others

What if you asked me my name....  
...and I responded with, “37”?





# DATA TYPES

Integer	Whole numbers Can be positive, negative, or zero
Float	“Floating point” numbers Decimal numbers
Character	A single character symbol
String	A group or “string” of characters
Boolean	Can only either be TRUE or FALSE

# INPUTS AND OUTPUTS

It all starts with an input of data...

- mouse clicks
- keyboard presses
- button presses
- dials
- switches

# INPUTS AND OUTPUTS

...and ends with an output

- screens/monitors
- speakers
- projectors
- spinning motors

# ALGORITHM

The process of translating  
inputs into outputs

Likely involves a  
series of calculations